

ABSTRACT

APPARATUS AND METHOD FOR RETENTION OF NON-THERMAL PLASMA REACTOR

A non-thermal plasma reactor is provided. The reactor includes a plasma-generating substrate, a housing, a voltage supplied to the plasma-generating substrate, and a retention material. The plasma-generating substrate has one or more flow paths for an exhaust gas. The plasma-generating substrate includes at least one weak area and at least one strong area. The housing has an inlet opening and an outlet opening. The voltage is supplied to the plasma-generating substrate for generating a plasma field. The retention material retains the plasma-generating substrate in the housing such that the one or more flow paths are in fluid communication with the inlet opening and the outlet opening. The retention material is configured to provide a higher retention force to the at least one strong area and a lower retention force to the at least one weak area.